DOCUMENT RESUME

ED 455 198 SP 040 117

AUTHOR	Shaul, Marnie E.
TITLE	Troops to Teachers: Program Helped Address Teacher Shortages. Report to Congressional Requestors.
INSTITUTION	General Accounting Office, Washington, DC.
REPORT NO	GAO-01-567
PUB DATE	2001-05-00
NOTE	18p.
AVAILABLE FROM	U.S. General Accounting Office, P.O. Box 37050, Washington, DC 20013. Tel: 202-512-6000; Fax: 202-512-6061; e-mail: Info@www.gao.gov; Web site: http://www.gao.gov.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Alternative Teacher Certification; Elementary Secondary Education; Inner City; *Military Personnel; Poverty; Program Effectiveness; Program Evaluation; *Teacher Persistence; *Teacher Shortage

ABSTRACT

This report examines the effectiveness of Troops to Teachers (TTT), which helped former military personnel become certified and employed teachers in school districts with low income populations experiencing teacher shortages. Information came from the TTT's database and from 1998 study, Profile of TTT, by the National Center for Education Information. Program officials from 10 of the 24 state offices that joined TTT completed interviews. Researchers reviewed reports by research organizations documenting factors that could have affected program participation. Overall, 13,756 former military personnel were accepted into TTT, and 3,821 were hired as teachers from 1994-2000. These results may be low, since data are incomplete. Nearly all of those hired remained in teaching after the first year. Compared to teachers nationwide, more TTT teachers taught math, science, special education, and vocational education and taught in inner city schools and high schools. Factors such as stipends, incentive grants, economic conditions, and state initiatives may have influenced the number of people who applied to TTT and became teachers. Factors that could have decreased the number of applicants and teachers include demand for specialized workers, economic growth, and reduction in supply of applicants. (SM)

Reproductions supplied by EDRS are the best that can be made
from the original document.

SP

United States General Accounting Office

GAO

Report to Congressional Requestors

May 2001

ED 455 198

TROOPS TO TEACHERS

Program Helped Address Teacher Shortages

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

GAO

Accountability • Integrity • Reliability

GAO-01-567

BEST COPY AVAILABLE

2

Contents

Letter 1

Tables

Table 1: TTT Program Data on Applications Received and Teachers Hired by Year 7
Table 2: Number of Former Military Personnel Placed in Teaching Positions From 1994 through September 30, 2000 8
Table 3: Comparison of Retention of TTT Teachers to All Teachers Nationwide as of Fiscal Year 2000 9
Table 4: Comparison of TTT Teachers to All Teachers Nationwide 10

Figures

Figure 1: States With TTT Offices 5

Abbreviations

DANTES	Defense Activity for Non-Traditional Educational Support
DoD	Department of Defense
NCEI	National Center for Education Information
TTT	Troops to Teachers

GAO
Accountability • Integrity • Reliability

United States General Accounting Office
Washington, DC 20548

May 25, 2001

The Honorable John W. Warner
Chairman
The Honorable Carl Levin
Ranking Member
Armed Services Committee
United States Senate

The Honorable Bob Stump
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Armed Services Committee
House of Representatives

Teacher shortages have become a topic of growing public concern. When the shortage of math and science teachers was increasing and the U. S. military forces were undergoing significant reductions in personnel, the Congress enacted legislation in 1992[1] establishing the Troops to Teachers (TTT) program. The program, administered by the Department of Defense (DoD), was designed to help separated (discharged or retired) military personnel become certified and employed as teachers in school districts with large low-income populations that were experiencing teacher shortages. As part of this effort, DoD worked with state education offices to help military personnel transition into teaching, often by means of a state alternative certification program.[2] In the first 2 years of the program, 1994 and 1995, TTT offered stipends to program participants to help cover their certification costs and incentive grants to school districts to hire TTT teachers, but stopped awarding stipends and grants after 1995. In October

[1] The National Defense Authorization Act for Fiscal Year 1993 (P. L. 102-484, Oct. 23,1992).

[2] Alternative certification commonly refers to an avenue to becoming licensed to teach that requires a baccalaureate degree from a college or university but does not require the degree be in education. Alternative certification addresses the professional preparation needs of people with at least a baccalaureate degree and who often have considerable life experience. Alternative certifications range from emergency certifications that place a person in the classroom immediately to longer programs that include course work and mentoring. While these programs vary within and among states, nearly all states now have some type of alternative to the traditional path of majoring in education in order to become a teacher.

1999, after the significant reductions in the military had leveled off but teacher shortages had become more widespread, the Congress re-authorized the program and transferred it from DoD to the Department of Education (Education) effective October 1, 2000. However, DoD still administers the program under an agreement with Education. This report reviews the program from its beginning in January 1994 until its transfer to Education.

In transferring the program to Education, the National Defense Authorization Act for fiscal year 2000 required us to provide information on program accomplishments as of September 30, 2000, and other matters as appropriate. We agreed to provide information on

- the number of people who applied to the TTT program and were hired as teachers from fiscal years 1994 through 2000 and the percentage of hired teachers who remained in teaching past the first year;
- the extent to which TTT teachers, compared with all teachers nationwide, taught
  - math, science, special education, and vocational education;
  - in inner city and rural areas; and
  - certain grade levels.
- factors that might have increased or decreased the number of people who applied for the program and became teachers.

We obtained program data from TTT's data base and from a study entitled "Profile of Troops to Teachers" completed in 1998 by the National Center for Education Information (NCEI). We interviewed TTT program officials from DoD and from 10 of the 24 state offices that have joined the program and reviewed documents on program operations. We also reviewed reports by research organizations documenting factors that could have affected program participation. We did our work in accordance with generally accepted government auditing standards between October 2000 and March 2001.

Results in Brief

According to TTT records, 13,756 former military personnel applied to the program and were accepted. Of these, 3,821 were hired as teachers from 1994 through 2000, and over 90 percent of those applicants hired as teachers remained in teaching after the first year. However, these figures on program participation most likely represent the minimum number of former military personnel who used the program's services and became teachers because they include only those persons who formally applied to the TTT program and who completed follow-up surveys. These data omit

people who used TTT program resources to become teachers but did not actually apply to the program. Between 1994 and 1995, people interested in receiving a stipend were required to formally apply to the program. However, people were less inclined to formally apply when the program stopped awarding stipends. In addition, in 1997 TTT created a web site that allowed users to contact state education offices, gather information about teacher certification programs, and access job openings without applying to the program. Four TTT state offices tracked military personnel who were hired as teachers after contacting their offices directly and who did not apply to the program. Their data show that a greater number of people entered into teaching as a result of the program than the official TTT program records show.

Compared with all teachers nationwide, a higher percentage of TTT teachers overall taugh math, science, special education, and vocational education and taught in inner city schools and high schools. For example, 20 percent of TTT teachers in 2000 were teaching special education compared with 5 percent of teachers nationwide in 1996. A higher percentage of TTT teachers were males (86 percent) and minorities (33 percent) than all teachers nationwide (26 percent and 11 percent, respectively). The program's ability to place teachers in subjects and geographic areas that are difficult to staff and the opportunity for states to improve the diversity of their teachers were factors in most states' decisions to join the TTT program.

Factors, such as stipends, incentive grants, economic conditions, and certain state initiatives may have influenced the number of people who applied to the program and became teachers. In 1994 and 1995, stipends—which lowered the cost of obtaining teacher certification—and incentive grants—which helped school districts pay TTT teachers' salaries—likely encouraged individuals to apply to the program and helped them get hired. The high demand for teachers, which had become more widespread by 1998, also probably increased the number of applications to the program. In addition, by making it easier to obtain certification, some state initiatives that eased the transition to teaching may have increased the number of applicants and TTT teachers. For example, some states reduced the time and cost of alternative certification requirements for applicants. However, some factors may have decreased the number of people who applied to the program and became teachers. For example, economic factors, including a low unemployment rate, the high demand and high salaries for workers with technical skills, and a reduction in the supply of potential military applicants could have negatively affected the number of people applying to the program.

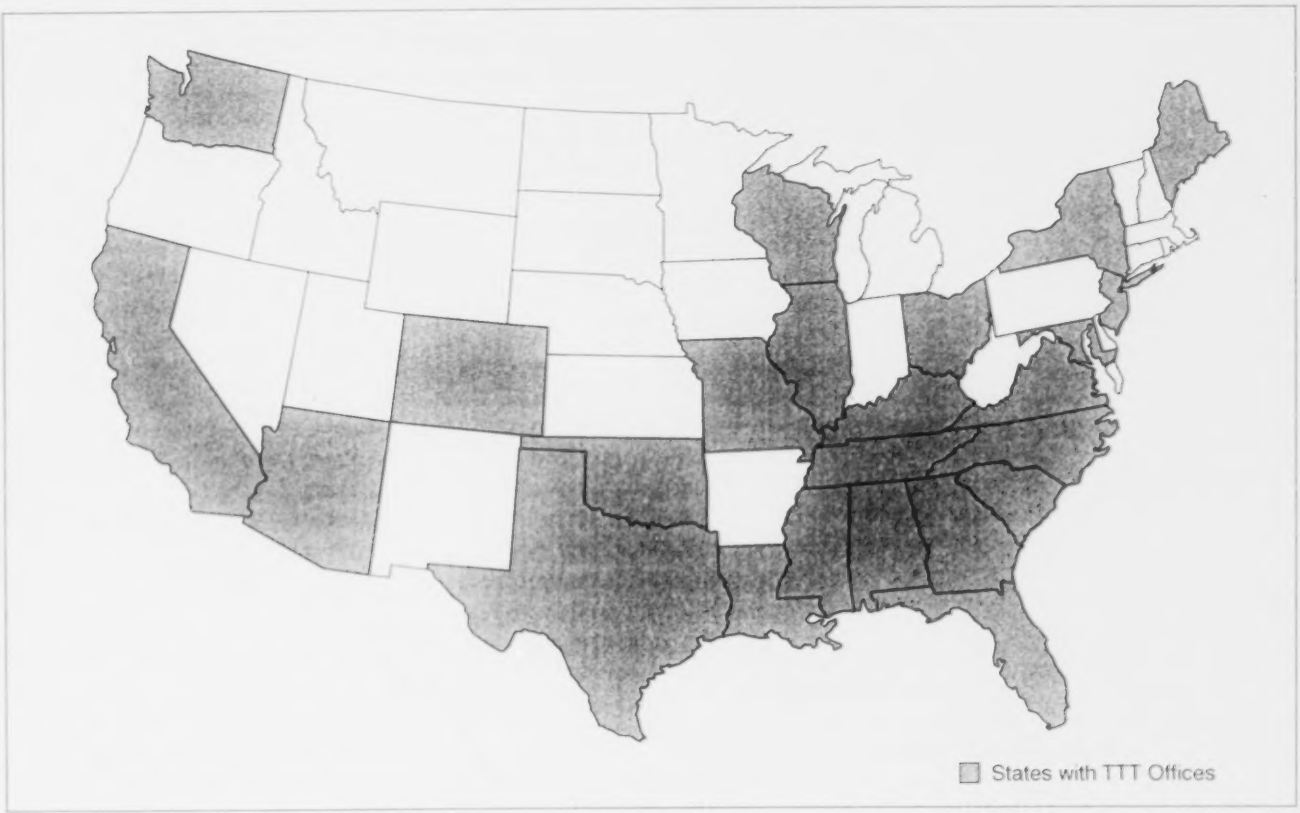
Background

The Troops to Teachers program is a federal program that began operations in 1994 with two goals: (1) to help military personnel affected by downsizing become teachers and (2) to ease the teacher shortage, especially in math and science and in areas with concentrations of children from low-income families. The program offers information on state teacher certification requirements and job referral and job placement assistance to active and former military personnel who are interested in pursuing teaching as a second career after leaving the military. According to TTT program data, military officers represent a major participant group. During 1994 and 1995, the program also offered financial incentives to military personnel and school districts to participate in the program. Participants who received stipends of up to $5,000 and became certified were required to teach for 5 years. School districts could receive grants of up to $50,000 paid over 5 years for each TTT participant they hired. The program stopped awarding new stipends and grants after 1995 when funds were no longer appropriated for this purpose.

The program is administered by DoD's Defense Activity for Non-Traditional Education Support (DANTES). DANTES and 24 state TTT offices carry out the program's efforts to ease former military personnel into teaching. (See fig. 1.) States voluntarily join the TTT program. States that wish to join submit proposals to DANTES describing the services they plan to provide and the activities in which they plan to engage to achieve the TTT program goals. If the proposal is approved, DANTES signs a memorandum of agreement with the state agency responsible for the TTT program, most often the state's department of education. DANTES provides funds for state program expenses, although the state TTT representatives are not federal employees.[1] From fiscal year 1994 through 2000, DANTES spent $5.5 million on program administration and provided states with a total of $12.1 million to operate their TTT offices, according to program officials.

[1] Most states staff their TTT offices with state department of education employees, but some staff their TTT offices with employees of other state agencies or with contractor or university personnel. Through fiscal year 2000, 23 states had received funds from the TTT program. Maine had not received any TTT funds.

Figure 1: States With TTT Offices



Note: Colorado also provides program coverage for New Mexico and Nevada.

Source: DANTES.

States that joined the program have had a great deal of flexibility in how they operate the TTT program in their state. State offices determine their own organizational structure, the amount of resources they will devote to the program, and the services they will provide. Sixteen states had joined TTT by 1995 and 8 more joined between 1998 and 2000.

DANTES and state TTT offices operate as a network to provide services to military personnel interested in becoming teachers. As part of this network, DANTES serves the following functions:

- Acting as the central liaison for all the military services and the state education offices and promoting the program at a national level.
- Approving and monitoring the memorandum of agreements.
- Working with the states to share recruitment practices.
- Maintaining the TTT program web site with links to state offices.
- Facilitating the transition from military life to teaching in the 26 states and the District of Columbia without TTT placement assistance offices.
- Monitoring the teaching commitments of the people who received stipends and any school districts that received grants on behalf of persons who applied to the TTT program during 1994 and 1995.

For their part, most state offices provide a broad range of services, including

- providing personalized counseling and advice to those who wish to become teachers,
- promoting the TTT program to school districts and the military community,
- promoting military personnel as potential teachers,
- maintaining an 800 number and the state link on the TTT web site with information and school district openings, and
- working to lessen costs and time required for military personnel to obtain certification.

The environment in which TTT functions has changed in ways that have implications for the program's future operations.

- In 1998, the military downsizing leveled off, essentially removing the first goal of the TTT program.
- DANTES' responsibility for monitoring the teaching commitments of those who received stipends and grants between 1994 and 1995 will end in a few years.
- Thirteen additional states currently have contacted DANTES and are waiting to join the program, either independently or as a consortium.
- The Congress appropriated $3 million for TTT in fiscal year 2001 under the Eisenhower Professional Development Program, placing TTT within Education's broader initiative to support teacher recruitment. The Eisenhower Program also provides additional funds in grants to states

and/or organizations that wish to develop new avenues for attracting teachers, especially second-career teachers.

- The President's 2002 budget proposes to support and expand TTT activities through the Transition to Teaching program. The $30 million budget proposed for Transition to Teaching would assist nonmilitary as well as military professionals with becoming teachers.

Program Placed Military Personnel in Teaching, but Numbers May Be Understated

According to TTT records, 3,821 of the 13,756 people accepted into the program were hired as teachers from fiscal years 1994 through 2000. However, this number probably underrepresents the number of people who have used program services and become teachers. Of those participants hired as teachers, over 90 percent remained in teaching past the first year.

TTT program records show that 17,459 people applied to the program from fiscal years 1994 through 2000 and, of these, 13,756 were accepted into the program. Of these participants, 3,821, or 28 percent, became teachers. (See table 1.) More than 85 percent of the TTT teachers were hired in states with TTT offices.

Table 1: TTT Program Data on Applications Received and Teachers Hired by Year

Year	Applications received	Teachers hired
1994	4,654	411
1995	5,250	929
1996	2,197	1,083
1997	1,608	656
1998	1,300	359
1999	1,340	281
2000	1,110	102
Total	17,459[a]	3,821[b]

[a]Of the number, 13,756 were qualified and accepted by DANTES.

[b]An additional 1,378 applicants are either working on certification or awaiting job placement.

Source: DANTES' program records as of September 30, 2000.

While no formal documentation was maintained on reasons for the withdrawals of 8,554 applicants accepted in the program who did not become teachers, the TTT program director provided several reasons why some participants withdrew from the program. For instance, some military personnel said they had found a better paying job, some realized that they

would not like teaching, and others thought the cost and time of the alternative certification process was onerous.

It is difficult to ascertain the full extent of TTT program participation, because program data are incomplete. When the stipends and incentive grants ended after 1995, it became difficult to track the number of people using the program's resources because they were less inclined to complete application forms and respond to surveys that tracked program retention. In addition, with the creation of the TTT web site, people could access information they needed to find certification programs and teaching positions and do so without applying to the program. Consequently, the number of people who used the program to become teachers is probably understated. DANTES officials told us that they believe their numbers undercount the total number of teachers hired as a result of the TTT program.

Similarly, some state TTT officials said that DANTES records may substantially undercount the number of former military personnel they have placed in teaching positions. Six of the 10 state TTT officials that we contacted said this was the case, but only 4 states—Colorado, Mississippi, South Carolina, and Texas—kept records with additional information on military persons whom they placed in teaching positions whether or not they completed a TTT program application. Table 2 shows the difference between DANTES' records and state records for the number of teachers hired within these states.

Table 2: Number of Former Military Personnel Placed in Teaching Positions From 1994 through September 30, 2000

State	DANTES	State TTT office
Colorado	89	101
Mississippi	39	85
South Carolina	146	191
Texas	571	1,273

Source: Prepared by GAO from DANTES' and state TTT records.

Available TTT program data also show that over 90 percent of TTT teachers remained in teaching after their first year. The percent of TTT teachers who remain in teaching for at least 3 years is about the same as that for all teachers nationwide, and the percent of TTT teachers that remain for 5 years is markedly better. (See table 3.) However, these retention rates should be considered in light of the fact that TTT teachers who received stipends had to teach for 5 years to pay off their financial

commitment. In addition, these data are based solely on teachers who received funding (2,135) and do not include those who did not.[4] However, a TTT program survey done in 1999 of school districts that hired TTT teachers—including those who completed applications and follow-up surveys but did not receive funding—showed similar results.

Table 3: Comparison of Retention of TTT Teachers to All Teachers Nationwide as of Fiscal Year 2000

	Percent retained as teachers		
Number of years teaching	DANTES program data of teachers who received funding[a]	DANTES survey of school districts in 1999[b]	National Center for Education Statistics – 1997[c]
1 year	93	94	91
3 years	79	84	80
5 years	71	71	50

[a]'DANTES' program data. The universe was 2,135.

[b]This survey had a 79-percent response rate from a universe of 3,359, which represented 662 school districts in 34 states.

[c]These data come from a national sample.

TTT Teachers Taught in Areas Where Teacher Shortages Existed

According to TTT program records and NCEI survey data, a higher percentage of TTT teachers overall taught math, science, special education, and vocational education and taught in inner city schools and high schools than all teachers nationwide. (See table 4.) For example, 20 percent of TTT teachers compared with 5 percent of teachers nationwide taught general special education. Also, a higher percentage of TTT teachers are male (86 percent) and minority (33 percent) than the national percentages (26 percent and 11 percent, respectively). Many states that joined the TTT program said that they did so because the program would enable them to fill positions in subjects or geographic areas in which they had shortages, especially in math, science, special education, and vocational education and in inner city schools. They also cited the program's potential for increasing the diversity of its teacher workforce.

[4] While funding was awarded only in 1994 and 1995, those people who received stipends could use these funds after 1995 because the total amount of the stipend was obligated when it was awarded. Some people needed 2 to 3 years to complete certifications and get hired as teachers. Also, incentive grants, awarded only in 1994 and 1995, were 5-year grants.

some specifically mentioned male and minority teachers as a factor in their decisions to join the TTT program.

Table 4: Comparison of TTT Teachers to All Teachers Nationwide

	Percent of TTT teachers based on		
	DANTES program data as of fiscal year 2000[a]	NCEI survey of TTT teachers in fiscal year 1998[b]	NCEI national survey of public school teachers in school year 1996[c]
Subjects taught			
Math	15	29	13
Science	11	27	11
Special education (general)	20	10	5
Vocational education	15	15	3
Total percentage of teachers of math, science, special and vocational education	61	81	32
Schools where employed			
Inner city	24	24	16
Rural	24	24	23
Small town, nonrural	24	24	30
Suburban	27	27	31
Grade level taught			
Elementary	25	20	47
Middle/junior high	29	35	26
High school	46	45	27
Teacher characteristics			
Male	86	90	26
Minority	33	29	11

[a]These numbers, from a universe of 3,821, do not include TTT teachers who did not complete follow-up surveys.

[b]The data, from a universe of 1,171, were from a survey of TTT teachers completed by NCEI in 1996 and are reported in "Profile of Troops to Teachers," National Center for Education Information, 1998.

[c]The universe was 1,018.

Several Factors Could Have Affected Program Participation

Several factors may have affected—both positively and negatively—the number of military personnel applying to the TTT program and the number hired as teachers. The positive factors were (1) the TTT stipends, (2) the TTT incentive grants, (3) the increased demand for teachers, and (4) accomplishments of state TTT offices. The negative factors were (1) increased demands for specialized workers, (2) economic growth, and (3) a reduction in the number of officers leaving the military.

BEST COPY AVAILABLE

Factors That Could Have Increased the Number of TTT Applicants and Teachers

The following factors may have increased the number of TTT applicants and/or teachers hired.

- *Stipends.* During the first 2 years of the program, stipends lowered the cost of obtaining teacher certification for TTT participants. In a DANTES survey of TTT teachers who had completed their 5-year teaching commitment for receiving the stipend, 59 percent reported that the TTT program was very important in making their decision to become a teacher, and 68 percent reported that the stipend was the most important feature of the TTT program.
- *Incentive grants.* During the first 2 years of the program, TTT incentive grants lowered the cost to school districts of hiring TTT teachers relative to other job candidates, thereby increasing the demand for TTT teachers. The increased probability of being hired would have made the program more attractive to applicants.
- *Demand for teachers.* Education data show that teacher shortages became more widespread in 1998, thus the demand for teachers expanded and intensified. The increased likelihood of employment for TTT teachers after certification could have increased the number of applicants to the program.
- *Accomplishments of state TTT offices.* State TTT offices have experienced some success in decreasing the time and cost of teacher certification for military personnel and in increasing the demand among school districts for TTT hires. Both of these accomplishments probably made the program more attractive to potential applicants.
  - More alternative teacher certification programs are available to persons pursuing second careers as teachers, including military personnel, sometimes as a direct result of the TTT program. For example, the Florida, Wisconsin, and Washington state TTT offices played roles in convincing their state legislatures in 2000 to authorize new alternative teacher certification programs.
  - Some state TTT offices, working with DANTES, created opportunities for military personnel to satisfy some teacher certification requirements while still on active duty. For example, the Texas TTT office, working in conjunction with three Texas universities, implemented a distance learning program in the Fall 2000 offering teacher certification classes at military bases worldwide. Texas also worked with DANTES to make its teacher certification examination available at military bases worldwide.
  - Some states lowered the cost of teacher certification for military personnel in response to the efforts of their state TTT office. For example, California and Washington reduced the fees they charged military personnel to take courses at state universities.

- Outreach and promotional activities by state TTT offices increased school districts' demand for TTT hires. For example, the Colorado, Illinois, North Carolina, and Ohio TTT offices increased the number of school districts that posted their teacher vacancies on the TTT data base.

Factors That Could Have Decreased the Number of TTT Applicants and Teachers

The following factors may have decreased the number of TTT applicants and/or teachers hired.

- *Demand for specialized workers.* A nationwide increase in demand for workers with math/science backgrounds, especially in information technology and the sciences, which generally pay higher salaries than teaching, may have attracted potential military personnel with these skills away from pursuing a teaching career. Between 1994 and 1999, the number of workers employed in the mathematical and computer sciences increased by almost 56 percent while total employment increased by about 8.5 percent.
- *Economic growth.* The general growth in the economy in the 1990s increased the number of alternative job opportunities for those leaving the military. An important indicator of economic growth and the demand for labor is the unemployment rate. The greater the economic growth, the greater the demand for labor and the lower the unemployment rate. Between 1994 and 1999, the unemployment rate declined from 6.1 percent to 4.2 percent.
- *Reduction in supply of applicants.* The number of retired commissioned officers, warrant officers, and high-graded noncommissioned officers declined from 34,335 to 26,612 between 1994 and 1999. This group comprised 76 percent of all TTT applicants during this period.

Conclusions

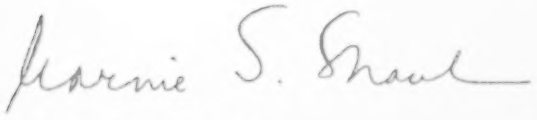
The TTT program is currently functioning in an environment that differs greatly from when it began 7 years ago. Its first purpose, to place military persons affected by downsizing initiatives in the classroom, has essentially been eliminated while its second purpose, to address teacher shortages, has become a more critical national issue. Also, the transition to teacher from a different profession has become easier in many states through new or expanded alternative teacher certification programs. With the recent transfer of TTT from DoD to Education, it is too early to determine how TTT will fit into Education's mission and its broader teacher recruitment and retention initiatives. However, this new environment presents opportunities for Education to explore how best to coordinate the TTT

program with other education programs to address the nation's growing teacher shortage problem.

Agency Comments

We provided Education and DoD with a draft of this report for review, and both agencies provided comments via e-mail. Education noted that it has other programs to increase the number of qualified teachers, including the Transition to Teacher and Eisenhower Professional Development programs, and that the information in the report will be valuable as the Department continues to explore ways that these programs can collaborate and strengthen services. DoD said that it has reviewed the report and accepted the report's conclusions.

We are sending copies of this report to the Honorable Roderick R. Paige, Secretary of the Department of Education, and other interested parties. We will also make copies available to others on request. If you or your staffs have any questions about this report, please contact me on (202) 512-7215 or Karen Whiten at (202) 512-7291. Key contributors to this report were Mary Roy, Ellen Habenicht, Richard Kelley, Barbara Smith, and Patrick DiBattista.



Marnie S. Shaul, Director
Education, Workforce, and
Income Security Issues

Ordering Information

The first copy of each GAO report is free. Additional copies of reports are $2 each. A check or money order should be made out to the Superintendent of Documents. VISA and MasterCard credit cards are also accepted.

Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:
U.S. General Accounting Office
P.O. Box 37050
Washington, DC 20013

Orders by visiting:
Room 1100
700 4th St., NW (corner of 4th and G Sts. NW)
Washington, DC 20013

Orders by phone:
(202) 512-6000
fax: (202) 512-6061
TDD (202) 512-2537

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

Orders by Internet
For information on how to access GAO reports on the Internet, send an e-mail message with "info" in the body to:

Info@www.gao.gov

or visit GAO's World Wide Web home page at:

http://www.gao.gov

To Report Fraud, Waste, and Abuse in Federal Programs

Contact one:

- Web site: http://www.gao.gov/fraudnet/fraudnet.htm
- E-mail: fraudnet@gao.gov
- 1-800-424-5454 (automated answering system)

United States
General Accounting Office
Washington, D.C. 20548-0001

Bulk Rate
Postage & Fees Paid
GAO
Permit No. G100

Official Business
Penalty for Private Use $300

Address Correction Requested